

09/918,177

01AB085

REMARKS

Claims 1-41 are currently pending in the subject application and are presently under consideration. Claim 27 has been amended herein to cure minor informalities. Claims 21-26 and 31-41 have been withdrawn herein in response to a Restriction Requirement. A current version of all pending claims is found at pages 2-7.

Favorable reconsideration of the subject patent application is respectfully requested in view of the amendments and comments herein.

I. Restriction Requirement

Applicants' representative affirms the telephonic election, with traverse, of Group I (Claims 1-20 and 27-30, drawn to an industrial controller system and a method for providing an industrial controller with functionality, classified in class 700, subclass 19) for further prosecution on the merits.

II. Objection of Claim 27

The current Office Action dated December 22, 2003 contends that claim 27 contains informalities. In response thereto, claim 27 has been currently amended herein to remedy a typographical error. It is believed that this amendment renders the objection moot. Accordingly, the objection of claim 27 should be withdrawn.

III. Rejection of Claims 1-20 and 27-30 Under 35 U.S.C. §102(e)

Claims 1-20 and 27-30 stand rejected under 35 U.S.C. §102(e) as being anticipated by Papadopoulos *et al.* (U.S. 6,587,884). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Papadopoulos *et al.* does not teach or suggest *each and every element* of the claimed invention.

For a prior art reference to anticipate, 35 U.S.C. §102 requires that "*each and every element* as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999) (*quoting Verdegaal*

09/918,177

01AB085

Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)) (emphasis added).

The present invention generally relates to industrial control systems and in particular *to providing a file system on an industrial controller and a system and method for employing the file system.* (See pg. 1, ln. 5-7).

In accordance with the present invention, the file system allows industrial control programs to implement many functions previously performed within the industrial control program and stored in the same memory as the industrial control program. An execution engine is adapted to interpret new instructions that invoke the services of the file system. The execution engine, the file system and the running industrial control program (e.g. ladder logic program) *provide the functionality for loading user defined routine files at run-time from any file location, such as a memory device residing on the industrial controller, on a local server or at a remote location.* (See pg. 3, ln. 13-22).

In other words, a novel aspect of the present invention alleviates memory restrictions of conventional industrial control systems by providing a file system to facilitate retrieval of data (e.g. user programs, measured and trend data, recipes, operating systems and updates, etc.) from local and/or remote memory and storage devices.

In particular, as recited in independent claim 1 (and similarly in independent claim 27), the subject invention includes an industrial controller system which provides i) *a file system residing in a program memory of an industrial controller, the file system having a plurality of file system services;* and ii) *an execution engine residing in the program memory of the industrial controller,* the execution engine adapted to interpret code from an industrial control program, the industrial control program including at least one instruction utilizing one or more of the plurality of file system services.

The cited reference, Papadopoulos *et al.*, relates generally to the field of programmable controllers but, more particularly, to a system for coupling a network of programmable controllers through the Internet. (See col. 1, ln. 28-31). In other words, Papadopoulos *et al.* is directed to a system to remotely communicate with a logic controller via the Internet.

09/918,177

01AB085

Papadopoulos *et al.* fails to teach or suggest the claimed aspects of independent claims 1 and 27 of the subject invention. Rather, Papadopoulos *et al.* simply discloses a control system including an Internet web interface to a network of at least one programmable logic control system running an application program for controlling output devices in response to status of input devices. (See Abstract).

It is contended in the Office Action dated December 22, 2003 that Papadopoulos teaches the invention including an industrial controller system and method for providing an industrial controller with functionality associated for utilizing a file system residing on the industrial controller comprising: a file system residing in a program memory of an industrial controller, the file system having a plurality of file system services; and an execution engine residing in the program memory of the industrial controller, the execution engine adapted to interpret code from an industrial control program, the industrial control program including at least one instruction utilizing one or more of the plurality of the file system services.

Applicants respectfully disagree with such an assertion. For at least the reasons set forth above, applicants submit that Papadopoulos *et al.* does not teach or suggest *a file system residing in a program memory of an industrial controller, the file system having a plurality of file system services*. Moreover, Papadopoulos *et al.* fails to teach or suggest *an execution engine residing in the program memory of the industrial controller adapted to interpret code from an industrial control program, the industrial control program including at least one instruction utilizing one or more of the plurality of the file system services*.

Papadopoulos *et al.* is silent with regard to any *file system* or *file system services* as recited in independent claims 1 and 27 of the subject application. As well, Papadopoulos *et al.* is silent with regard to *an execution engine residing in the program memory* as disclosed and claimed in the subject application. Rather, Papadopoulos *et al.* merely discloses an Internet web interface system that simply enables a user to remotely communicate with a programmable logic controller system.

With specific reference to claims 2-4 which depend from independent claim 1, it is respectfully submitted that this rejection should be withdrawn for at least the reasons

09/918,177

01AB085

set forth above. Additionally, it is respectfully submitted that Papadopoulos *et al.* is silent with regard to any system or method *to load or store user defined routine files* as claimed in the subject application.

With specific reference to claims 5-7 which depend from independent claim 1, it is respectfully submitted that this rejection should be withdrawn for at least the reasons set forth above. Additionally, it is respectfully submitted that Papadopoulos *et al.* is silent with regard to any system or method *to load or store recipe files* as claimed in the subject application.

With specific reference to claims 8-9 and 28-30 which depend from independent claims 1 and 27 respectfully, it is submitted that this rejection should be withdrawn for at least the reasons set forth above. Additionally, it is respectfully submitted that Papadopoulos *et al.* is silent with regard to any system or method *to load or save an industrial control program file with respect to an operating system file* as claimed in the subject application.

Finally, with specific reference to claims 10-13 and 14-17 which depend from independent claim 1, it is respectfully submitted that this rejection should be withdrawn for at least the reasons set forth above. Additionally, it is respectfully submitted that Papadopoulos *et al.* is silent with regard to any system or method *to log measured or trend data* as claimed in the subject application.

In view of at least the above, it is readily apparent that Papadopoulos *et al.* does not anticipate or suggest the subject invention as recited in independent claims 1 and 27 (and claims 2-20 and 28-30 which respectively depend there from). Accordingly, withdrawal of these rejections is respectfully requested.

09/918,177

01AB085

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063.

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,

AMIN & TUROCY, LLP



Himanshu S. Amin

Reg. No. 40,894

AMIN & TUROCY, LLP
24TH Floor, National City Center
1900 E. 9TH Street
Cleveland, Ohio 44114
Telephone (216) 696-8730
Facsimile (216) 696-8731